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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/751,765	12/29/2000	Robert A. Wiedeman	900.0020USU	5071

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EXAMINER

SMITH, SHEILA B

ART UNIT	PAPER NUMBER
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2681

DATE MAILED: 12/14/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 09/751,765	<b>Applicant(s)</b> WIEDEMAN ET AL.	
	<b>Examiner</b> Sheila B. Smith	<b>Art Unit</b> 2681	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 19 September 2005.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-26 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 26 is/are allowed.
- 6) ☒ Claim(s) 1-25 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## DETAILED ACTION

### *Claim Rejections - 35 USC § 103*

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

1. Claim 1 is rejected under 35 U.S.C. 103(a) as being unpatentable over Alperovich et al. (U.S. Patent Number 6,018,660) in view of Martti et al. (U.S. Patent Number 6,718,169).

Regarding *claim 1*, Alperovich et al. discloses essentially all the claimed invention as set forth in the instant application, further Alperovich et al. discloses an apparatus and method for grouping carriers to minimize the occurrence of call blocking in a satellite-based communications network. In addition Alperovich et al. discloses a method for operating a mobile satellite communication system having at least one gateway (350), at least one user terminal (300), comprising steps of: for a site to be protected from UT transmissions, specifying an exclusion zone (which reads on "If the satellite subscriber's actual geographic location is within the area prescribed to the barring feature, the barring feature is invoked", as disclosed in column 3 lines 9-11) associated therewith; and selectively providing service to a UT (300) depending on a determined location of the UT relative to the exclusion zone (which reads on, as disclosed in column 15 lines 13-17) and on an estimate of the determined UT location (which reads on "Otherwise, the barring feature is not invoked", as disclosed in column 3 lines 11-12). However, Alperovich et al. fails to specifically disclose (a) the use of a constellation of satellites and (b) a confidence limit (CL) and the estimated error (E).

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The examiner contends, however, that (a) the use of a constellation of satellites is well known in the art and at the time of the invention it would have been obvious to a person of ordinary skill in the art to improve Alperovich et al. by modifying the system and method for invoking barring features in a satellite network with a constellation of satellites for the purpose of operating a satellite communication system.

In the same field of endeavor, Martti et al. discloses a method for determining a confidence limit. In addition Martti et al. discloses the use of (b) a confidence limit and estimated error (which reads on column 1 lines 60-67 and column 2 lines 1-45).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to improve Alperovich et al. by modifying the a position location system with a confidence limit and estimated error as taught by Martti et al. for the purpose of setting the target value.

Claims 2-12, and 19-25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Alperovich et al. in view of Martti et al. and further in view of Maeda et al. (U.S. Patent Number 6,352,222).

**Regarding claims 2,6,8,9**, Alperovich et al. in view of Martti et al. discloses everything claimed as applied above (*see claim 1*) however, Alperovich et al. fails to specifically disclose the use of the exclusion zone is specified to comprise at least one of a polygon that defines an area, a volume, or a surface.

In the same field of endeavor, Maeda et al. discloses a satellite, satellite control method and satellite communication system. In addition Maeda et al. discloses the use of a exclusion zone is specified to comprise at least one of a polygon that defines an area, a volume, or a surface (which reads on this as to form such a polygon that includes all the service areas, as disclosed in column 10 lines 37-39).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to improve Alperovich et al. by modifying the a position location system with the exclusion zone is specified to comprise at least one of a polygon that defines an area, a volume, or a surface as taught by Maeda et al. for the purpose of setting the initial value for the orbital inclination angle.

***Regarding claims 3-5***, Alperovich et al. in view of Martti et al. and further in view of Martti et al. discloses everything claimed as applied above (see claim 1), in addition Alperovich et al. discloses a location of the UT (300) is determined by the UT (300), and transmitted to the GW (which reads on the MSC/VLR) as disclosed in column 4 lines 23-27.

***Regarding claim 7***, Alperovich et al. in view of Martti et al. discloses everything claimed as applied above (see claim 1), in addition Alperovich et al. discloses the UT (300) is granted service if the value of E is less than CL (which reads on “Otherwise, the barring feature is not invoked”, as disclosed in column 3 lines 11-12)

***Regarding claim 10***, Alperovich et al. in view of Martti et al. discloses everything claimed as applied above (see claim 1), in addition Alperovich et al. discloses the exclusion

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zone is specified to comprise a surface defined by at least two connected points on the surface of the earth and at least point located above the surface of the earth as disclosed in column 2 lines 48-59.

**Regarding claims 11-12**, Alperovich et al. in view of Martti et al. discloses everything claimed as applied above (see claim 1), in addition Alperovich et al. discloses boundaries of the exclusion zone are static as disclosed in column 4 lines 23-27.

**Regarding claims 19-25**, Alperovich et al. in view of Martti et al. discloses everything claimed as applied above (see claim 1), in addition Alperovich et al. discloses wherein there are overlapping exclusion zones specified, each having a different value of CL as disclosed in column 4 lines 23-27

3. Claims 13-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Alperovich et al. in view of Martti et al. in view of Maeda et al. and further in view of Ishikawa et al. (U.S. Patent Number 6,332,069).

**Regarding claims 13-18**, Alperovich et al. in view of Martti et al. in view of Maeda et al. discloses everything claimed as applied above (*see claim 1*) however, Alperovich et al. in view of Maeda et al. fails to specifically discloses the use of the value of E is a function of the accuracy of the UT local oscillator, and where information that specifies the accuracy of the UT local oscillator is stored in the UT.

In the same field of endeavor, Ishikawa et al. discloses a method for determining position of mobile earth station in satellite communication system. In addition Ishikawa et al. discloses the use of the value of E is a function of the accuracy of the UT local oscillator, and where information that specifies the accuracy of the UT local oscillator is stored in the GW (which reads on t is possible to perform high accuracy position determination by estimating and compensating for the timing error arising from instability in the accuracy of the clock of the mobile earth station and the frequency error resulting from instability of the frequency oscillator of the mobile earth station, as disclosed in column 6 lines 10-20).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to improve Alperovich et al. in view of Maeda et al. with the use of the value of E is a function of the accuracy of the UT local oscillator, and where information that specifies the accuracy of the UT local oscillator is stored in the UT as taught by Ishikawa et al. for the purpose of determine the estimated position of the mobile earth station relative to its true position.

***Allowable Subject Matter***

4. Claim 26 is allowed.

***Response to Arguments***

1. Applicant's arguments filed 9/19/05 have been fully considered but they are not persuasive.

Regarding applicants arguments concerning Alperovich et al U. S. 6,018,660 is directed to a telecommunications system and method for invoking barring features within a satellite

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network when calls to a subscriber within the satellite network are optimized. When a call is optimized for the satellite subscriber, the actual geographic location of the satellite subscriber is sent to the HLR and the new (optimal) MSC/VLR. This location can be sent as an MSC address, or other form. Therefore, when a barring feature is associated with the call, this MSC address is checked by the serving MSC or the HLR (in the case of barring of incoming calls when roaming outside of the home Public Land Mobile Network country). If the satellite subscriber's actual geographic location is within the barred area, the barring feature is invoked. Otherwise, the barring feature is not invoked. At col. 3, lines 9-11 in Alperovich et al there is disclosed "If the satellite subscriber's actual geographic location is within the area prescribed to the barring feature, the barring feature is invoked. Otherwise, the barring feature is not invoked." Fudher, in col. 4, not col. 15 as stated by the Examiner, lines 13-17 it is stated "The MS 300 then registers with the indicated MSC/VLR 340, and sends a setup message to the new MSC/VLR 340 via the satellite 310 and the new SBSS 345, as is understood in the art. The call can then be completed normally using minimal terrestrial circuits and existing satellite resources." Applicants respectfully submit there is no teaching, suggestion or implication of an exclusion zone having a confidence limit associated therewith as required in element 1 of claim 1, nor of providing service to a UT depending on a determined location of the UT relative to the exclusion zone and on an estimated error of the determined UT location as required in element 2 of claim 1 which is conspicuously absent in both references. Therefore, Applicants respectfully disagree that it would have been obvious to a person of ordinary skill in the art at the time the invention was made to improve Alperovich et al by modifying the a position location system with a confidence limit and estimated error as taught by Martti et al for the purpose of setting the target value. The



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examiner restates the above rejection, further the examiner contends that barring the features associated with a certain geographical area reads on the limitation of an exclusion zone.

Merriam Webster's Collegiate Dictionary Tenth Edition defines exclude as meaning "to bar from participation" the examiner believes that with this definition the disclosure of Alperovich column 3 lines 5-12 more than adequately meets this limitation, and that Martti et al. was simply used to disclose the common use of a confidence limit and a estimated error. The examiner further contends that Maeda was used to disclose the common use of the polygon to define an area, a volume or a surface, this disclosure more that adequately meets that limitation.

The examiner stands by and restated the above rejection.

### ***Conclusion***

2. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37

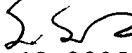
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CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sheila B. Smith whose telephone number is (571)272-7847. The examiner can normally be reached on Monday-Thursday 6:00 am - 3:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Joseph Feild can be reached on 571-272-4090. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

S.Smith   
December 12, 2005